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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/101,846	07/17/1998	LOTHAR FINZEL	P-981197	1129

7590 05/21/2004

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EXAMINER

LAVARIAS, ARNEL C

ART UNIT	PAPER NUMBER
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2872

DATE MAILED: 05/21/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/101,846

Applicant(s)

FINZEL ET AL

Examiner

Arnel C. Lavarias

Art Unit

2872

AW

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 3/11/04, 12/22/03.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 74, 76 and 78-90 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 74, 76, 78-90 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date: _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Response to Amendment

1. The cancellation of Claims 2-47, 49-50, 52-53, 56-71 in the submission dated 3/11/04 is acknowledged and accepted.
2. The amendments to Claim 86 in the submission dated 3/11/04 are acknowledged and accepted.

Response to Arguments

3. The Applicants argue that, with respect to Claims 74, 81, and 86, Finzel in view of Szegda '853 and Theys et al. fail to teach or reasonably suggest the waveguide-receiving pipes being connected to the lead-in spigots by respective sealing connections, the sealing connections comprising sleeves having respective interior spaces fittingly contacting the respective outer surfaces of the lead-in spigots and the respective outer surfaces of the waveguide-receiving pipes. In particular, Applicants argue that the waveguide-receiving pipes are a portion of the respective fiber optic cable along with optical waveguides. The Examiner respectfully disagrees. Firstly, the claimed limitations fail to recite the waveguide receiving pipes being a portion of the respective fiber optic cable along with optical waveguides, only that the fiber optic cables comprise waveguide receiving pipes and optical waveguides. Secondly, Applicants argue that flexible sleeve 14 of Szegda '853 is disposed outward of cable 2, and hence is not part of the cable. However, Figure 2 of Szegda '853 discloses the flexible sleeve 14 in contact via compressive pressure with

cable 2, and hence the flexible sleeve may be construed as being a part of cable 2.

Thirdly, the Applicants argue, and wrongly assume, that flexible sleeve 14 of Szegda '853 is not a portion of the cable because it does not extend the length of the cable/fiber.

If this were so, then the cable 2 would also not be a part of the optical fiber cable surrounding optical fibers 4 since the cable 2 also does not extend the length of the cable/fiber. However, with the flexible sleeve 14 being disposed around and in tight contact with the cable 2, the flexible sleeve 14 may be construed as being a part of the cable 2.

4. The Applicants further argue, with respect to Claims 74, 81, and 86, that Finzel in view of Szegda '853 and Theys et al. fail to teach or reasonably suggest the waveguide-receiving pipes terminating at the sealing connection and being disposed exteriorly of the closure body interior space so that respective terminal end sections of the lead-in spigots and the waveguide-receiving pipes are in contact. The Examiner respectfully disagrees. It is noted that the waveguide-receiving pipes (i.e. the flexible sleeve 4 of Szegda '853) terminates at the sealing connection (i.e. compression nut 18 in Figure 2 of Szegda '853) and is disposed exteriorly of the closure body interior space (See the space to the right of device 20 in Figure 2 of Szegda '853) so that respective terminal end sections of the lead-in spigots (See housing 10 in Figure 2 of Szegda '853) and the waveguide-receiving pipes are in contact (See region where 10 and 14 are in contact in Figure 2 of Szegda '853). Further, with regard to Theys et al., Examiner notes that Theys et al. discloses the cable (i.e. the waveguide-receiving pipes; See 32 in Figure 11) passing through the outlet (i.e. lead-in spigot; See 31 in Figure 11), but does not disclose that the cable terminating

inside the closure body interior space (See interior of 22 in Figure 11). Hence, one skilled in the art may reason that the cable end may terminate at the outlet and in contact with the outlet; a sealing connection (See 30 in Figure 11) connecting the cable and outlet.

5. The Applicants further argue that, with respect to Claims 74, 81, and 86, that Finzel in view of Szegea '853 and Theys et al. fail to teach or reasonably suggest the interior space of the cable closure body being at least partially defined by a wall surface of the closure body, the wall surface comprising at least one ledge for supporting a waveguide tray. The Examiner respectfully disagrees. Theys et al specifically discloses the interior space (See interior of 2 in Figure 1; interior of 22 in Figure 11) of the cable closure body being at least partially defined by a wall surface (See in particular the inner wall surface of 11 in Figure 2a) of the closure body, the wall surface comprising at least one ledge (See ledge 7 in Figure 1; 13, 7 in Figure 2a) for supporting a waveguide tray (See 10 in Figure 1). It is noted that the ledge is attached to the wall surface, and hence the ledge may be construed as being a part of the wall surface.

6. Claims 74, 76, 78-90 are rejected as follows.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 74, 76, 78-81, 83-86, 88-90 are rejected under 35 U.S.C. 103(a) as being unpatentable over Finzel (UK Patent Application No. GB2277812A), of record, in view of Szegda (U.S. Patent No. 5283853, or Szegda '853), of record, and Theys et al. (WIPO Publication WO 90/08336), of record.

With regard to Claims 74, 76, 78, 80-81, 84-86, and 89-90, Finzel discloses an optical fiber transmission system comprising a cable closure with a cable body 1, cable lead-in spigot pipes 5, a sealed closure cover 4, waveguide receiving pipes 25 and cables 7. Waveguide receiving pipes may be sealed in spigots 5, as by a busing seal (See Finzel, page 4, lines 10-13). One would expect such a pipe to be tightly fitted to seal properly. Although Finzel does not disclose how pipe 25 is secured to pipe section 5, adhesive bonding would have been obvious as a conventional securing means that would assure the desired relationship at all times during shipping and use, regardless of tolerance of manufacture. Additionally, although Finzel does not disclose a waveguide tray or ledges for supporting waveguide trays, waveguide trays, such as splicing trays, are conventional in cable connections and storage systems of coiled cables and therefore would have been obvious. In particular, Theys et al. teaches the use of such splicing trays (See for example 10 in Figure 1) which are connected to the splice case on a ledge-like projection (See for example 7 in Figure 1). Additionally, Szegda '853 teaches an end connector for connecting an optical fiber cable to a port associated to a piece of equipment (See for example Figure 2) wherein the waveguide receiving pipes (See 14 in Figure 2) are connected to the lead-in spigots (See 10 in Figure 2) via sealing connections comprising a sleeve having an interior surface (See 18 in Figure 2), the sealing connections fittingly

contacting the respective outer surfaces of the lead-in spigots and the respective outer surfaces of the waveguide-receiving pipes. Also, the lead-in spigots and the waveguide receiving pipes are disclosed as being in contact (See 10, 14 in Figure 2), and the waveguide receiving pipes being disposed exteriorly of the closure body interior space. Finally, Theys et al. further teaches a splice case for an optical fiber cable (See Figures 1 and 11) wherein the outer surfaces of the cable lead-in spigots (See 31 in Figure 11) and the waveguide-receiving pipes (See 32 in Figure 11), which terminate at the sealing connection and are disposed exteriorly of the closure body interior space (See Figure 11), are in fitting contact with the interior surface of the sealing sleeve (See 30 in Figure 11; Pages 14-15). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to connect the waveguide receiving pipes to the lead-in spigots via sealing connections, as taught by Szegda '853 and Theys et al., in the optical fiber transmission system as disclosed by Finzel. One would have been motivated to do this to provide additional mechanical strength and sealing at the connection, thus preventing breakage (due to for example rotational or longitudinal forces) or injection of debris into the transmission system at the connection.

With regard to Claims 79, 83, 88, Finzel in view of Szegda '853 and Theys et al. discloses the invention as set forth above, except for the closure body comprising a base section having a dome shape (in the instant case, Finzel discloses a closure body comprising a base section having a rectangular shape (See 4 in Figure 1)). It would have been obvious to one of ordinary skill in the art at the time the invention was made to have the closure body comprising a base section having a dome shape, since it has been held

that a mere change in shape of an element is generally recognized as being within the level of ordinary skill in art when the change in shape is not significant to the function of the combination. Furthermore, Theys et al. teaches a splice case for an optical fiber cable wherein the closure body comprises a base section having a dome shape (See 22 of Figure 11). One would have been motivated to select a dome shape for the purpose of reducing or optimizing the volume of space the optical transmission system requires for assembly and operation. *In re Dailey*, 357 F.2d 669, 149 USPQ 47 (CCPA 1966).

9. Claims 82 and 87 are rejected under 35 U.S.C. 103(a) as being unpatentable over Finzel in view of Szegda '853 and Theys et al. as applied to Claims 81 and 86 above, and further in view of Grenier (U.S. Patent No. 5695224), of record.

If a reference is considered required to demonstrate the conventionality and obviousness of welding, soldering, and/or adhesive bonding in pipe connections, then Grenier clearly provides such teachings (See for example col. 1, lines 10-15 of Grenier).

Conclusion

10. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any


Art Unit: 2872

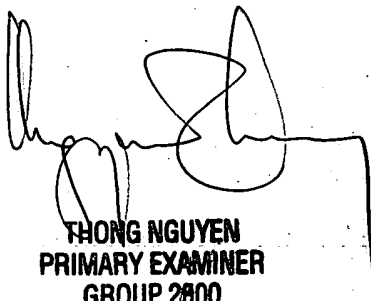
extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Arnel C. Lavarias whose telephone number is 571-272-2315. The examiner can normally be reached on M-F 8:30 AM - 5 PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Drew Dunn can be reached on 571-272-2312. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Arnel C. Lavarias
5/14/04


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